

IN THE CLAIMS:

Please amend claims 1, 9, 17, and 18, as follows:

1. (Currently amended) A method of initiating a telecommunications uplink from a mobile terminal to a telecommunications network, the mobile terminal having a transmission chain including a baseband stage, a power amplification stage and an antenna, the method comprising:

transmitting a preamble signal from the mobile terminal at a first time, the preamble signal being transmitted in accordance with at least two variable transmission parameters of the mobile terminal; and

determining whether a base station has successfully received the preamble signal; ~~and if so, establishing an uplink to the base station on the basis of the first transmission parameter; and~~

in the event it is not determined that a base station has successfully received the preamble signal, changing at least one of the transmission parameters, and repeating the transmitting of the preamble signal and the determining whether a base station has successfully received the preamble signal at a time later than the first time,

wherein each time it is not determined that a base station has successfully received the preamble signal, the changing at least one of the transmission parameters comprises varying a transmission parameter of the preamble signal that is different from a transmission parameter varied in the previous transmission, and

~~wherein the transmission parameter controls one or more of the baseband stage, power amplification stages and the antenna such that changing the transmission parameter~~changing at least one of the transmission parameters results in an alteration of a signal diversity of one or more preambles as received by the base station at the later time; and

~~wherein the signal diversity comprises multipath diversity.~~

2. (Previously Presented) The method according to claim 1, wherein the transmission chain includes at least two antennae, and the transmission parameter determines which of the antennae the preamble is transmitted from.

3. (Previously Presented) The method according to claim 2, wherein the preamble is transmitted from only one of the antennae at a time.

4. (Previously Presented) The method according to claim 1, wherein the transmission parameter indicates a frequency band, each preamble being transmitted via the frequency band indicated by the current transmission parameter.

5. (Previously Presented) The method according to claim 1, wherein the transmission chain includes a plurality of antennae in an antenna array, and directionality

of a beam formed by signals transmitted from the array is selected for each preamble transmission based on the transmission parameter.

6. (Previously Presented) The method according to claim 5, wherein the transmission chain includes a phase shifting means for shifting the phase of the signals supplied to the individual antennae in the antenna array, the phase shifters being controllable on the basis of the transmission parameter.

7. (Previously Presented) The method according to claim 1, wherein the uplink is established in accordance with the transmission parameter used when the base station successfully received the preamble at the first time or at a later time than the first time.

8. (Previously Presented) The method according to claim 1, wherein the transmission parameter includes a power level at which each preamble is transmitted, the power level being increased between at least some sequentially adjacent preamble transmissions.

9. (Currently amended) An apparatus, comprising:

a transmission chain including a baseband stage, a power amplification stage and an antenna;

a transmitter configured to transmit a preamble signal in accordance with at least two variable transmission parameters of the apparatus at a first time;

a determiner configured to determine whether a base station has successfully received the preamble signal ~~and if so, to establish an uplink to the base station on the basis of the first transmission parameter; and; and~~

in the event it is not determined that a base station has successfully received the preamble signal, a changing unit is configured to change at least one of the transmission parameters, and repeat the transmission of the preamble signal and the determination of whether the base station has successfully received the preamble signal at a time later than the first time,

wherein each time it is not determined that a base station has successfully received the preamble signal, the changing of the at least one of the transmission parameters by the changing unit comprises varying a transmission parameter of the preamble signal that is different from a transmission parameter varied in the previous transmission, and

~~wherein the transmission parameter is configured to control one or more of the baseband stage, power amplification stages and the antenna such that changing of the transmission parameter~~changing of the at least one of the transmission parameters by the

changing unit results in an alteration of a signal diversity of one or more subsequent preambles as received by the base station at the later time, ~~and~~
wherein the signal diversity comprises multipath diversity.

10. (Previously Presented) The apparatus according to claim 9, wherein the transmission chain includes at least two antennae, and the transmission parameter is configured to determine which of the antennae the preamble is transmitted from.

11. (Previously Presented) The apparatus according to claim 10, wherein the preamble is transmitted from only one of the antennae at a time.

12. (Previously Presented) The apparatus according to claim 9, wherein the transmission parameter is configured to indicate a frequency band, each preamble being transmitted via the frequency band indicated by the current transmission parameter.

13. (Previously Presented) The apparatus according to claim 9, wherein the transmission chain includes a plurality of antennae in an antenna array, and directionality of a beam formed by signals transmitted from the array is selected for each preamble transmission based on the transmission parameter.

14. (Previously Presented) The apparatus according to claim 13, wherein the transmission chain includes a phase shifter configured to shift the phase of the signals supplied to the individual antennae in the antenna array, the phase shifters being controllable on the basis of the transmission parameter.

15. (Previously Presented) The apparatus according to claim 9, wherein the uplink is established in accordance with the transmission parameter used when the base station successfully received the preamble at the first time or at a later time than the first time.

16. (Previously Presented) The apparatus according to claim 9, wherein the transmission parameter includes a power level at which each preamble is transmitted, the power level being increased between at least some sequentially adjacent preamble transmissions.

17. (Currently amended) A computer-readable medium encoded with a computer program, the computer program configured to control a processor to perform operations comprising:

transmitting a preamble signal from a mobile terminal at a first time, the preamble signal being transmitted in accordance with at least two variable transmission parameters of the mobile terminal;

determining whether a base station has successfully received the preamble signal ~~and if so, establishing an uplink to the base station on the basis of the first transmission parameter~~; and

in the event it is not determined that a base station has successfully received the preamble signal, changing at least one of the transmission parameters, and repeating the transmitting of the preamble signal and the determining whether a base station has successfully received the preamble signal at a time later than the first time,

wherein each time it is not determined that a base station has successfully received the preamble signal, the changing at least one of the transmission parameters comprises varying a transmission parameter of the preamble signal that is different from a transmission parameter that was varied in the previous transmission, and

~~wherein the transmission parameter controls one or more of a baseband stage, power amplification stages, and an antenna of the mobile terminal such that changing at least one of~~ the transmission parameters results in an alteration of a signal diversity of one or more preambles as received by the base station at the later time; ~~and~~

~~wherein the signal diversity comprises multipath diversity.~~

18. (Currently amended) An apparatus, comprising:

a transmission chain including a baseband stage, a power amplification stage and an antenna;

transmitting means for transmitting a preamble signal in accordance with at least two transmission parameters of the apparatus at a first time;

determining means for determining whether a base station has successfully received the preamble signal ~~and if so, to establish an uplink to the base station on the basis of the first transmission parameter~~; and

in the event it is not determined that a base station has successfully received the preamble signal, changing means for changing at least one of the transmission parameters, and repeating the transmission of the preamble signal and the determination of whether the base station has successfully received the preamble signal at a time later than the first time,

wherein each time it is not determined that a base station has successfully received the preamble signal, the changing of the at least one of the transmission parameters by the changing means comprises varying a transmission parameter of the preamble signal that is different from a transmission parameter varied in the previous transmission, and

wherein the ~~transmission parameter controls one or more of the baseband stage, power amplification stages and the antenna such that~~ changing of the at least one of the

transmission parameters by the changing unit results in an alteration of a signal diversity of one or more subsequent preambles as received by the base station at the later time, ~~and wherein the signal diversity comprises multipath diversity.~~